

REMARKS

Applicant has studied the Office Action dated March 25, 2009. Claims 1, 4-6, and 9-14 are pending. Claims 1 and 6 have been amended to more clearly claim disclosed embodiments and claims 2, 3, 8, and 10 have been canceled without prejudice. Claims 1 and 6 are independent claims. No new matter has been added as the amendments have support in the specification as originally filed.

It is submitted that the application, as amended, is in condition for allowance. Reconsideration is respectfully requested.

§ 103 Rejections

Claim 1-6 and 8-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ranagan et al. ("Ranagan" US 6,154,771) in view of Bruckhaus (US 6,052,492). This rejection is respectfully traversed.

With this paper, claims 2, 3, 8, and 10 have been canceled without prejudice. It is, therefore, respectfully submitted that the rejection is moot with respect to claims 2, 3, 8, and 10 and it is respectfully requested that the rejection be withdrawn.

With regard to the rejection of independent claims 1 and 6, the examiner asserts that the abstract of Ranagan discloses an image extracting means for extracting the thumbnail image from the broadcasting stream while the broadcasting stream is stored. Applicant respectfully disagrees with the Examiner's interpretation of Ranagan.

Contrary to the Examiner's assertion, the abstract of Ranagan does not disclose or suggest storing the broadcasting stream. Further, Ranagan fails to disclose or suggest extracting the thumbnail image from the broadcasting stream while the broadcasting stream is being stored, as recited in independent claims 1 and 6.

Moreover, Ranagan discloses that thumbnail images are images extracted at all scene changes at col. 29, lines 8-21, and thus, the thumbnail image disclosed in Ranagan is extracted whenever a scene change occurs and all the thumbnail images appear below the playback window. According to Ranagan, from the renderer 711, the image to be rendered is captured every 15 frames and fed to the scene change detection (SCD) module 715 which does the scene change detection. If a scene

change is detected then the SCD module 715 passes on the scene information to the image control 716 which renders the scenes as thumb nail images 74 on the portion of the screen just below the main playback screen 72 (col. 27, line 59-col. 28, line 3).

Therefore, in Ranagan, the sampling or scene change occurs very rapidly at a rate of every 0.5 second interval. However, according to Ranagan, in the case of very rapidly changing video programs, an excessive number of thumbnail images will be extracted and the memory, which instantly stores the extracted thumbnail images, would be overloaded.

In contrast to Ranagan, in the present invention, the plurality of thumbnail images are extracted from the broadcasting stream at each scene change point within predetermined time intervals, as recited in independent claims 1 and 6. Therefore, contrary to Ranagan in which all scene changes render thumbnail images, not all scene changes necessarily render thumbnail images in the present invention because there may be time intervals between the thumbnail images. In other words, according to independent claims 1 and 6, not all the scene changes necessarily render thumbnail images because time intervals may be present between a scene change which currently renders a thumbnail image and the thumbnail image extracted at the next time interval. Thus, even if the scene changes, a thumbnail image may not be rendered if the scene changed before the next predetermined time interval.

Accordingly, in contrast to Ranagan, even in the case of very rapidly changing video programs, the storing means will not be overloaded in the present invention according to independent claims 1 and 6. It is respectfully submitted that Ranagan fails to disclose or suggest that the plurality of thumbnail images are extracted from the broadcasting stream at each scene change point within predetermined time intervals, as recited in independent claims 1 and 6. It is further respectfully submitted that Bruckhaus fails to cure the above identified deficiencies of Ranagan with respect to independent claims 1 and 6.

In view of the above discussion, it is respectfully asserted that independent claims 1 and 6 are allowable over the cited combination of references. It is further respectfully asserted that claims 4-5, which depend from independent claim 1, and

claims 9 and 11-14, which depend from independent claim 6, are also allowable over the cited combination of references.

CONCLUSION

In view of the above remarks, Applicant submits that all pending claims of the present application are in condition for allowance. Reconsideration of the application, as originally filed, is requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned agent at the Los Angeles, California telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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